

**JOINT TACTICAL RADIO SYSTEM (JTRS) SOFTWARE  
COMPUTER ARCHITECTURE (SCA) CO-PROCESSOR**

**ABSTRACT OF THE DISCLOSURE**

A joint tactical radio system (JTRS) software computer architecture (SCA) apparatus that implements services for a waveform application by reducing latency in middleware and the operating system such that more power efficient processors can be used. The apparatus includes an object request broker that marshals data from the waveform application for communication and an object request broker interface that communicates the marshaled data using a memory pool and select functions of an Operating System. At least a portion of the object request broker is implemented in hardware and at least a portion of the object request broker interface is implemented in hardware and at least a portion of the Operating System is implemented in hardware.